

WHAT IS CLAIMED IS:

1. A method for querying a data structure in a distributed computing

environment, comprising:

preparing a query specifying a data type of a variable and a value

5 contained within said data structure;

sending the query to an object wherein said object determines whether
maintains a data structure having a variable of the data type specified and whether
the variable contains the specified value.

10 2. The method as recited in claim 1 wherein the query is specified as a text
string.

3. The method as recited in claim 1 wherein the data structure is stored as
one of XML, database tables, and a programming language data structure.

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4. The method as recited in claim 1 further comprising receiving a data value
from at least one digital device indicative of the storage of the value in said digital
device.

20 5. The method as recited in claim 1 wherein the digital device comprises one
of a personal computer, personal digital assistant, video tape recorder, a display
device, and an MP3 player.

6. The method as recited in claim 1 wherein the query is sent in the form of a message over a data network.

7. A computer-readable medium bearing computer-readable instructions for carrying out the method recited in claim 1.

8. A system for determining the status of a device, comprising:
a query generation mechanism for generating a type query specifying a data type and a value;

10 a query transmission mechanism for transmitting the type query and the value over a communication network to at least one digital device whereby the digital device compares the data type to a data type of a data structure that it maintains and compares the value to a value stored in the data structure.

15 9. The system as recited in claim 8 wherein the data structure is stored as one of XML, database tables, and a programming language data structure.

10. The system as recited in claim 8 wherein the query is specified as a text string.

11. The system as recited in claim 8 further comprising a receiving mechanism for receiving a data value from at least one digital device indicative of the storage of the value in said digital device.

5 12. The system as recited in claim 1 wherein the digital device comprises one of a personal computer, personal digital assistant, video tape recorder, a display device, and an MP3 player

13. A method for use in a digital device in a distributed system, comprising:
10 coupling the digital device to a communication network;
storing a value in a data structure in said digital device, said data structure defined by a programming language data type definition;
receiving a query specifying a query data type and a query value;
comparing the query data type to the data structure data type and the query
15 value to the value stored in the data structure;
indicating whether the query data type matches the data structure data type and whether the query value matched the value stored in the data structure.

14. The method as recited in claim 13 wherein the programming language is
20 one of a procedural language and an object oriented language.

15. The method as recited in claim 14 wherein the programming language is one of an interpreted language and a compiled language.

16. The method as recited in claim 15 wherein the object oriented language is 5 one of JAVA, C#, CLR, and C++.

17. The method as recited in claim 13 wherein the digital device is one of a personal computer, a personal digital assistant, an MP3 player, a video cassette recorder and a display device.

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18. The system as recited in claim 13 wherein the query is specified as a text string.

19. The method as recited in claim 13 wherein the query is received in the 15 form of a message over a data network.

20. A computer-readable medium bearing computer-readable instructions for carrying out the method recited in claim 13.

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